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10/695,445	10/29/2003	Frederic Fox	1481.0310000	4563

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EXAMINER

JARRETT, SCOTT L

ART UNIT PAPER NUMBER

3623

DATE MAILED: 04/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,445

Applicant(s)

FOX ET AL

Examiner

Scott L. Jarrett

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-4, 6-7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al., U.S. Patent Publication No. 2003/0004780.

Regarding Claim 1 Smith et al. teach a weather-based decision system for providing business recommendations (actions, plans, etc.) based on a plurality of weather (meteorological, climatological) and other business data/information (Abstract; Paragraphs 0008-0010; "...provides a means for incorporating such information (weather) into business planning in a way that will enhance the recommendation of operational solutions that can maximize quantifiable business objectives...", Paragraph 0022). More generally Smith et al. teach a method and system for integrating a plurality of weather information into well-known enterprise systems (computer-based planning systems, decision support, enterprise planning, materials requirements, supply chain, expert systems, etc.; Abstract; Paragraphs 0002-0007, 0018-0022; Figures 1, 2, 4 and 5 as shown below) thereby enabling businesses to make weather-adapted business

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decisions (“...allows weather information to be systematically considered and evaluated in the context of the extended enterprise planning environment...”; Paragraph 0010).

More specifically Smith et al. teach that the weather-based decision system comprises:

- assigning a confidence level (accuracy) to the weather driven demand data (Paragraphs 0029, 0031, 0034, 0036; 0041, 0051; 0046; Figure 2, Element 203; “The system may also be used to evaluate the value of the weather information, e.g. as a function of various accuracies...”, Paragraph 0063);
- assigning an opportunity level to the weather driven demand data (Paragraphs 0051-0054, 0064);
- generating weather decision points (thresholds, critical decision thresholds, critical decision criteria; weather thresholds, user-defined thresholds; Paragraphs 0029, 0030, 0050-0051);
- providing business recommendations via a business rules engine (rules engine, expert system, decision support system, enterprise resource planning system, etc.; Paragraphs 0022-0023; Figure 5; “Rules may be implemented in a rule-based knowledge system (e.g. expert system) or by other means.”, Paragraph 0050); and
- a business rules database (“...weather rules database, and ... business decision rules database..”; Paragraph 0033; Figure 4, Elements 401a, 403a as shown below).

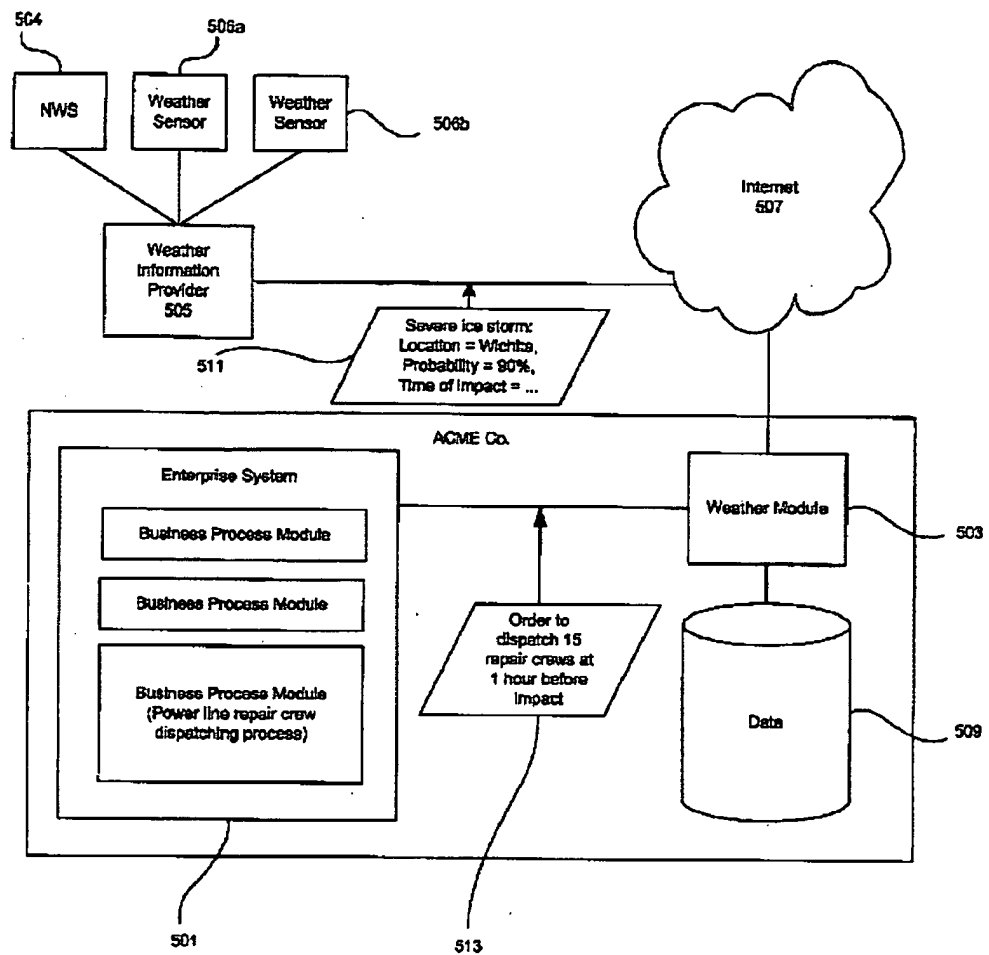


FIG. 5

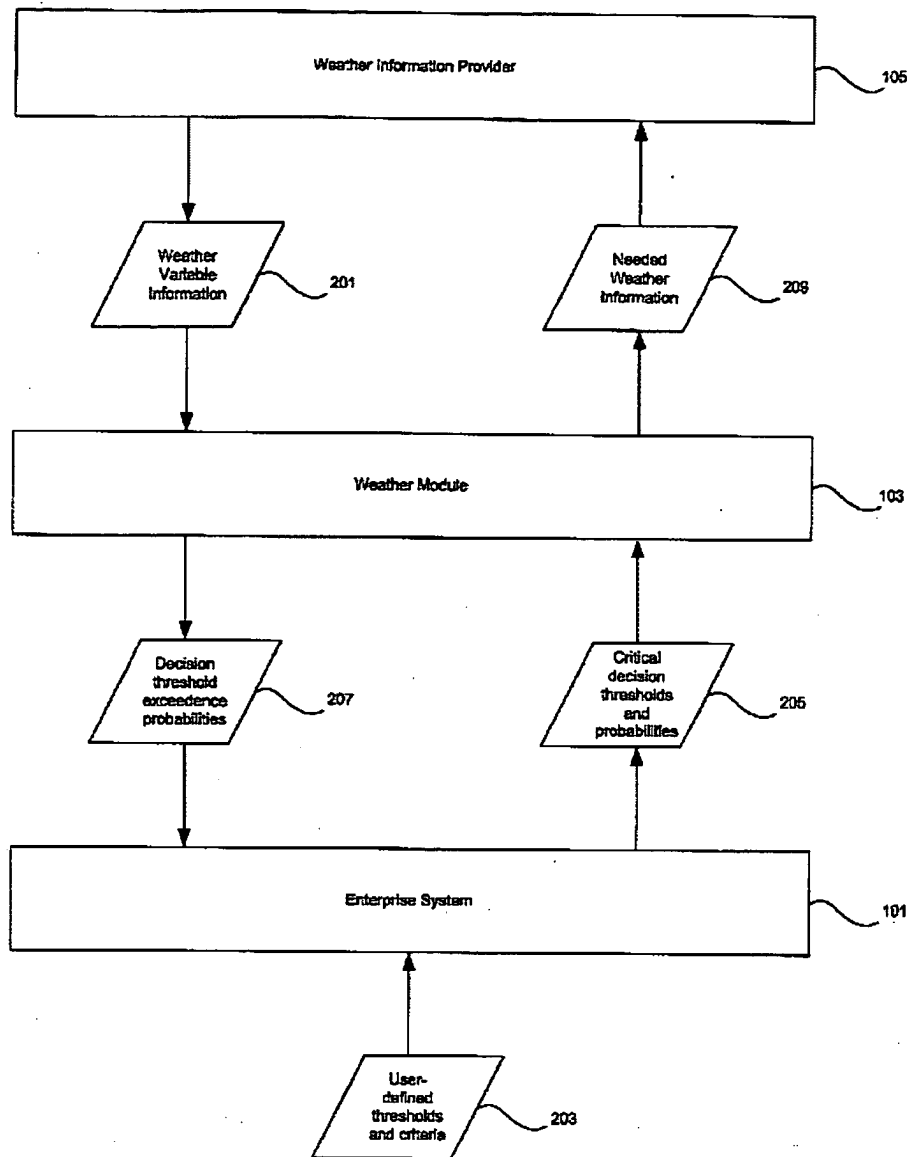
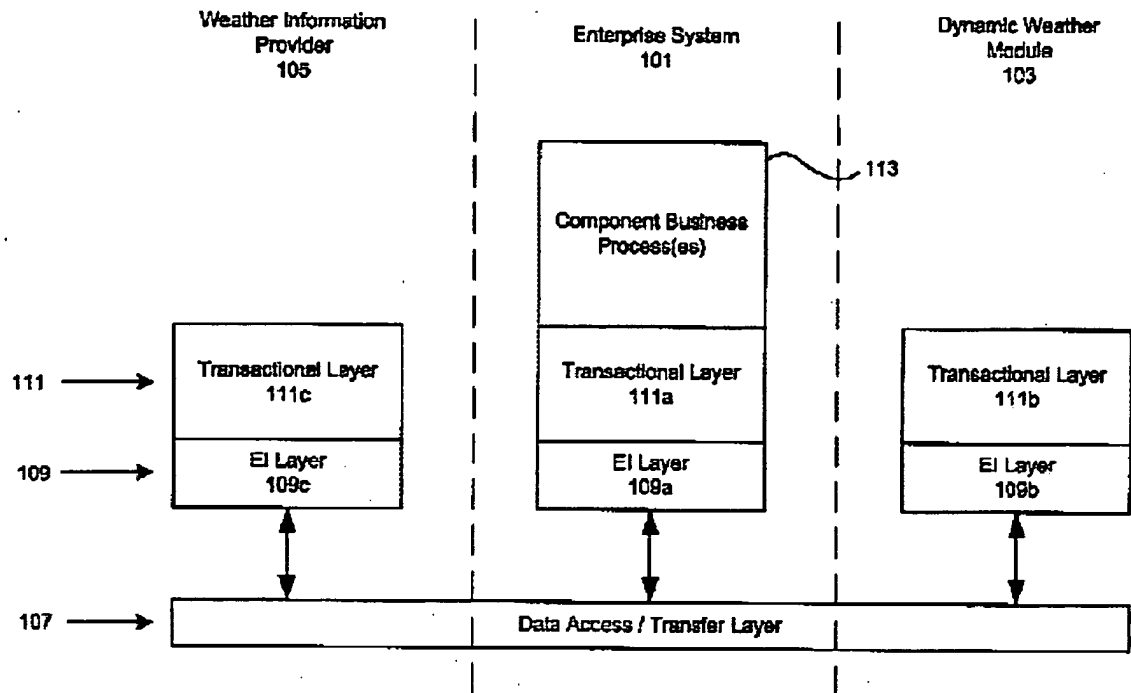


FIG. 2

Regarding Claim 3 Smith et al. teach a weather-based decision system further comprising an external data (database, data stream, data access/transfer layer, etc.) interface for accessing one or more external data sources ("various weather providers",

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Paragraph 0017; Paragraphs 0017, 0026-0027, 0034, 0066; Figures 1, Element 107 and Figure 4 below).

**FIG. 1**

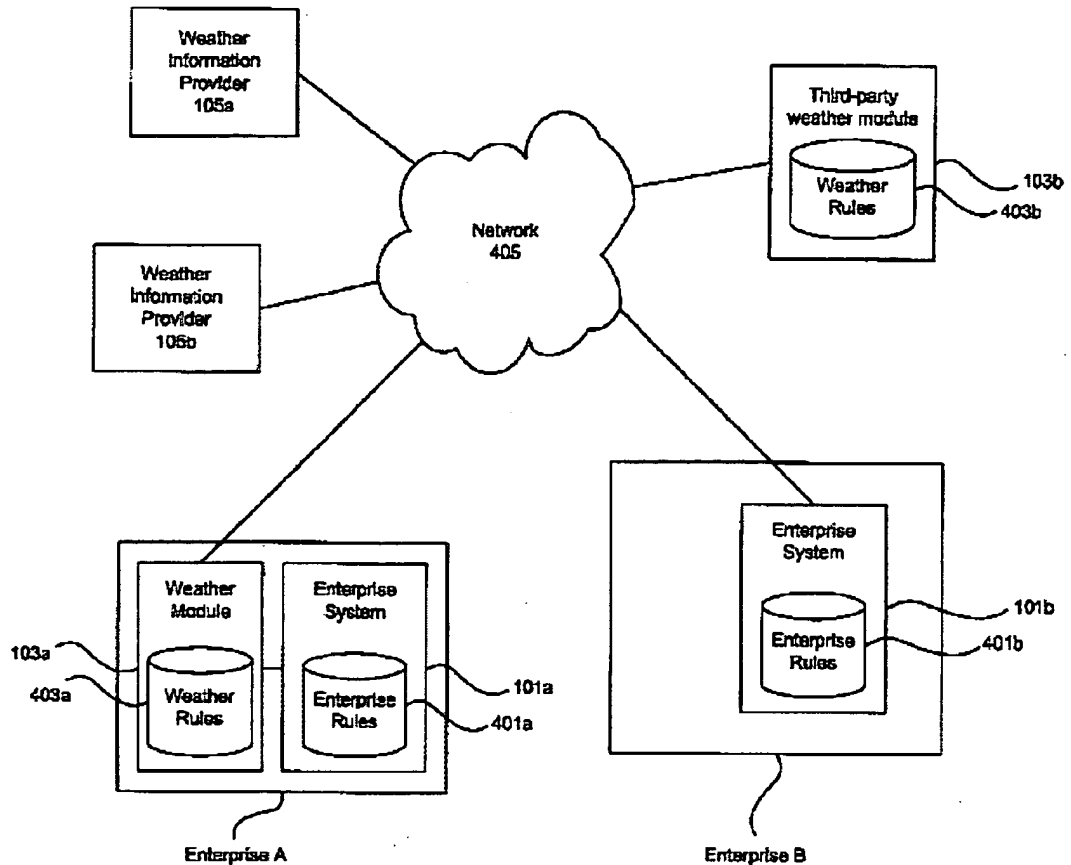


FIG. 4

Regarding Claim 4 Smith et al. teach a weather-based decision system wherein the confidence level is based on a probability that a weather element forecast is accurate ("...may compare accuracy of the weather information...", Paragraph 0034; "Accuracy can be measured using a wide range of techniques.", Paragraph 0036; Paragraphs 0029, 0031, 0034, 0036; 0041, 0051; 0046; Figure 2, Element 203).

Further Smith et al. teach the utilization of a plurality of accuracy measures (confidence levels) related to weather forecast and non-weather related information as part of the decision rules (Paragraph 0034) and that the confidence levels (accuracy) enables the system to take into account the accuracy of the information upon which the decision making process takes place (“...may use accuracy information independent of weather forecast information for decision rules based on accuracy...”, Paragraph 0034; “The system may also be used to evaluate the value of the weather information, e.g. as a function of various accuracies...”, Paragraph 0063).

Regarding Claim 6 Smith et al. teach a rules-based weather-based decision system (expert system) wherein weather decision points are generated by examining (comparing, analyzing, reviewing, etc.) a plurality of information (variables, parameters, data, rules, etc.) including but not limited to a weather forecast confidence level (accuracy), the weather forecast (weather information historical & future) and the opportunity level for a weather driven demand data point (Abstract; Paragraphs 0008-0010, 0029, 0031, 0034, 0036; 0039, 0041, 0051; 0046; Figure 2, Element 203).

Regarding Claim 7 Smith et al. teach a method for generating business recommendations for a business activity on one or more weather elements (weather-based decision system and method) comprising (“The enterprise may use this information to make advanced informed decisions based at least in part on weather information.”, Paragraph 0068; Paragraph 0031):

(a) receiving a weather element relationship for a business activity (user thresholds, business rules, weather rules, weather sensitivity; Paragraphs 0024, 0029, 0051);

(b) receiving weather driven demand for a business activity (Paragraphs 0051; Figures 2, 4 and 5 as shown above);

(c) assigning an opportunity (potential sales, potential revenue, competitive forces, profit, business optimization, etc.; Paragraphs 0018-0022, 0061, 0074) measure to each of the data points within the weather driven data;

(d) identifying weather decision points based on opportunity measures (thresholds, user-defined thresholds; Paragraph 0029-0030; Figure 3); and

(e) generating business recommendations by applying business weather rules (Paragraphs 0010, 0019, 0033, 0072-0074; Figure 3).

Regarding Claim 9 Smith et al. teach weather-based decision system and method further comprising:

(f) assigning weather element confidence levels (accuracy) to weather driven demand data (Paragraphs 0029, 0031, 0034, 0036; 0041, 0051; 0046; Figure 2, Element 203); and

using the weather element confidence levels to identify weather decision points (thresholds, user-defined thresholds; Paragraph 0029-0030; Figure 3).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 2, 5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Smith et al., U.S. Patent Publication No. 2003/0004780 as applied to claims 1, 3-4, 6-7 and 9 above, and further in view of Fox et al., U.S. Patent No. 5,832,456.

Regarding Claim 2 Smith et al. teach a weather-based decision system enables users, as part of the overall enterprise system (computer-based planning systems; e.g. i2, SAP, Oracle, etc.), to view a plurality of information and data related to the management of the business ("integrated view", Paragraph 0003) and that the system can be access/utilized as part of an Internet website (Paragraphs 0058, 0074).

Smith et al. further teach that the use of weather-based business forecasting systems are known in the art, specifically describing that U.S. Patent No. 5,832, 456 (Fox et al.) "...does not incorporate weather forecasts into an enterprise system utilized for making business decisions" (Paragraph 0006).

While the utilization of graphical user interfaces is well known in the art for enabling users to efficiently interact with computer systems Smith et al. does not

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expressly teach that the weather-based decision system further comprises a graphical user interface.

Fox et al. teach a weather-based decision system and method further comprising a graphical user interface (Abstract; Figures 23-43). More generally Fox et al. teach a weather-based system and method for predicting future business (retail) performance wherein the system utilizes a sales history, weather history, weather patterns, weather forecast and the like coupled with an analyzer and configurator to analyze past business performance and predict future business performance (weather decision points; Abstract; Column 4, Lines 18-34; Column 7, Lines 6-36).

It would have been obvious to one skilled in the art at the time of the invention that the weather-based decision system and method, with its ability to provide an "integrated view" of the business and availability via the Internet, as taught Smith et al. would have utilized a graphical user interface to provide a convenient means for users to interact with the system in view of the teachings of Fox et al.

Regarding Claim 5 Smith et al. teach a weather-based decision system wherein the Smith et al. teach weather-based decision system and method wherein a plurality of businesses and their associated business processes (products, goods, services and the like) are sensitive to weather elements (events, effects; Paragraphs 0004-005, 0008, 0023-0024; "...one or more computer-implemented component business processes which

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are sensitive to the effects of weather.”, Paragraph 0023) and that such weather element relationships (relationship or impact of a weather element on a business activity; sensitivity of the business process to weather) are captured as part of the business automation process (Paragraphs 0023, 0049; e.g. airplane flight routing system).

Further Smith et al. teach the utilization of a plurality of accuracy measures (confidence levels) related to weather forecast and non-weather related information as part of the decision rules (Paragraph 0034) and that the confidence levels (accuracy) enables the system to take into account the accuracy of the information upon which the decision making process takes place (“...may use accuracy information independent of weather forecast information for decision rules based on accuracy...”, Paragraph 0034; “The system may also be used to evaluate the value of the weather information, e.g. as a function of various accuracies...”, Paragraph 0063).

While Smith et al. does teach that the system determines, analyzes and utilizes the correlations/relationships between weather elements and business activities (i.e. weather and business rules embody the sensitivity/correlation/impact between business activities and weather elements) Smith et al. does not expressly teach that a confidence level (measure of accuracy) is assigned based on the strength of the correlation (relationship, sensitivity, impact, etc.; Specification: “The strength of the confidence level is based on how strongly correlated a product’s business activity results are related to

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weather elements.”, Paragraph 0009) between a product (event, decision, process, etc.) being considered and one or more weather elements (events).

Fox et al. teach a weather-based system and method wherein the impact (positive, negative, none) of weather elements on business activities (performance, product's sale) is measured/calculated (score, count, etc.; Column 14, Lines 19-34; Column 16, Lines 60-68; Column 20, Lines 17-25; Column 22, Lines 55-57; Figures 14, 26, 29) and that a confidence level is applied to the correlation between the product and one or more weather elements (Column 23, Lines 1-8).

It would have been obvious to one skilled in the art at the time of the invention that the weather-based decision system and method, with its ability to model and predict business performance, via business and weather rules, based on the sensitivity of business activities to weather and use of a plurality of accuracies as taught Smith et al. coupled with modeling (including in the business rules) the strength of correlation between the business activity and one or more weather provides the user with an enhanced ability to determine the impact of weather on a plurality of business activities (components, processes, products) in view of the teachings of Fox et al.

Regarding Claim 8 Smith et al. teach weather-based decision system and method wherein the weather sensitivity of business activities are modeled and utilized for providing business recommendations as discussed above.

Further Smith et al. teach the utilization of a plurality of accuracy measures related to weather forecast and non-weather related information as part of the decision rules and that the confidence levels enables the system to take into account the accuracy of the information upon which the decision making process takes place as discussed above.

Smith et al. does not expressly teach that confidence levels are assigned to the weather element **relationships** (i.e. measure the accuracy of the relationship between a business activity to a particular weather event/element) as claimed.

Fox et al. teach a weather-based system and method wherein the impact of weather elements on business activities is measured/calculated and that a confidence level is applied to the correlation between the product and one or more weather elements as discussed above.

It would have been obvious to one skilled in the art at the time of the invention that the weather-based decision system and method, with its ability to model and predict business performance, via business and weather rules, based on the sensitivity of business activities to weather and use of a plurality of accuracies as taught Smith et al. coupled with modeling (including in the business rules) the accuracy of the relationship between a business activity and a weather element (weather element relationship confidence level, sensitivity) provides the user with an enhanced ability to determine the

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impact of weather on a plurality of business activities (components, processes, products) in view of the teachings of Fox et al.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Fox et al., U.S. Patent No. 5,491,629, teach a weather-based method and system for determining the impact of weather on business planning (i.e. the sensitivity of business activities, retail sales, to weather). Fox et al. further teaches that businesses, retailers, consciously or unconsciously use weather information as part of their planning processes and that the long-range executive weather information system enables users to generate new/updated managerial plans based on the weather impact model for buying, distribution, labor scheduling and the like.

- Fox et al., U.S. Patent No. 5,521,813, teach a weather-based system and method for determining the future impact (sensitivity, correlation) of predicted weather elements on business activities (buying, promotions, etc.).

- Fox et al., U.S. Patent No. 5,796,932, teach a graphical user interface for the long-range executive weather information system (LEWIS) for displaying the impact of weather on the retail industry.

- Fox et al., U.S. Patent No. 6,584,447, teach a weather-based decision system and method for providing business and individual consumer recommendations based on a set of weather and other information (e.g. event, business activity, etc.). Fox et al. further teaches the well-known utilization weather information to predict the impact/sensitivity/correlation, measure in strength scores and confidence levels, between weather events and activities (business activities, consumer events, etc.).

- Yoshida et al., U.S. Patent Publication No. 2002/0091692, teach weather-based decision system and method for facilitating weather related business decisions wherein the system receives a plurality of weather information stored in a central database and couple with a weather predicting subsystem and provides a graphical user interface.

- Lof et al., U.S. Patent Publication No. 2002/0194113, teach a weather-based decision system and method for providing business recommendations (risk management, renewable energy source management, options pricing).

- Willen et al., U.S. Patent Publication No. 2004/022556, teach a weather-based decision support system for forecasting weather-based demand for a product without the need for historical sales data. Willen et al. further teach that the weather-based demand forecasting system utilizes scoring matrices and weather indices to represent weather factor relationships.

- Parker, Daniel, U.S. Patent Publication No. 2004/0230519, teaches a weather-based decision system for providing business recommendations (insurance/derivative pricing). Parker further teaches the widespread utilization and availability of weather information provided for facilitating business decision making (e.g. NCDC's Environmetrics program's climate indices).

- Carpenter et al., U.S. Patent Publication No. 2004/0215394, teach a weather-based decision system for providing business recommendations (determining a trading position).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott L. Jarrett whose telephone number is (703) 306-5679. The examiner can normally be reached on Monday-Friday, 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hafiz Tariq can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SJ
4/6/2005


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